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NOTES ON ORCHIDS FROM LA BAYAMESA, CUBA John H. Beaman¹ and Richard Evans Schultes²

In July, 1955, the members of Harvard University's course in Tropical Botany (Biology 215) carried out plant collecting activities in several parts of Cuba. A number of the collections are of interest as representing new stations for a genus or species or as the second or third time a rare species has turned up on the Island. This appears to be especially true of the orchids gathered on the Pico de La Bayamesa. The following notes on the orchids from this second highest peak in Cuba are offered because of the rarity or phytogeographical interest of a number of the finds.

The course comprised four graduate students at Harvard University: Mr. Arthur S. Barclay, Mr. John H. Beaman, Mr. Jack A. Freeberg and Mr. Tchang-Bok Lee; and the instructor, Dr. Richard Evans Schultes. Studies of the forests at or near the summit of La Bayamesa, between 4900 and 5200 feet, were carried on between July 16 and 19, 1955. Intensive logging operations were in progress at this time, and it was possible to reach the top of the mountain by truck. We wish to acknowledge our gratitude to Señor Antonio Moreno, administrator of the operations, for his friendly help which enabled us to visit the area and to spend four very productive days at the summit of the mountain.

Relatively little botanical collecting has been carried out in the Sierra Maestra, that east-west ridge skirting the southwestern

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coast of the Cuban Provincia del Oriente. Pico Turquino, the highest mountain of Cuba, rising to over 6,000 feet and Pico de La Bayamesa, the second highest, lie relatively close together. Several collecting trips have gathered material from Turquino and from the valleys between Turquino and La Bayamesa. The following notes constitute apparently the first published records of orchids from La Bayamesa.

Most of the orchids enumerated below have been determined by the writers at the Orchid Herbarium of Oakes Ames of the Botanical Museum of Harvard University. The collections of Lepanthes, Pleurothallis and Stelis, have been identified by Mr. Leslie A. Garay, Assistant Curator of the Herbarium of the University of Toronto in Canada. Specimens of each collection cited have been deposited in the Ames Herbarium.

Reference to the distribution of species is based on a study of the material in the Ames Herbarium and on reports in the two modern treatments of Cuban orchids: Julian Acuña, "Catálogo descriptivo de las orquídeas cubanas" Estac. Exper. Agron. Santiago de Las Vegas Bol. No. 60 (1939) [June, 1938]; Hermano León, "Flora de Cuba," Vol. 1, Contrib. Ocas. Mus. Hist. Nac. Col. La Salle No. 8 (1946).

The data on the labels of the collections cited below are the same for each number and are as follows:

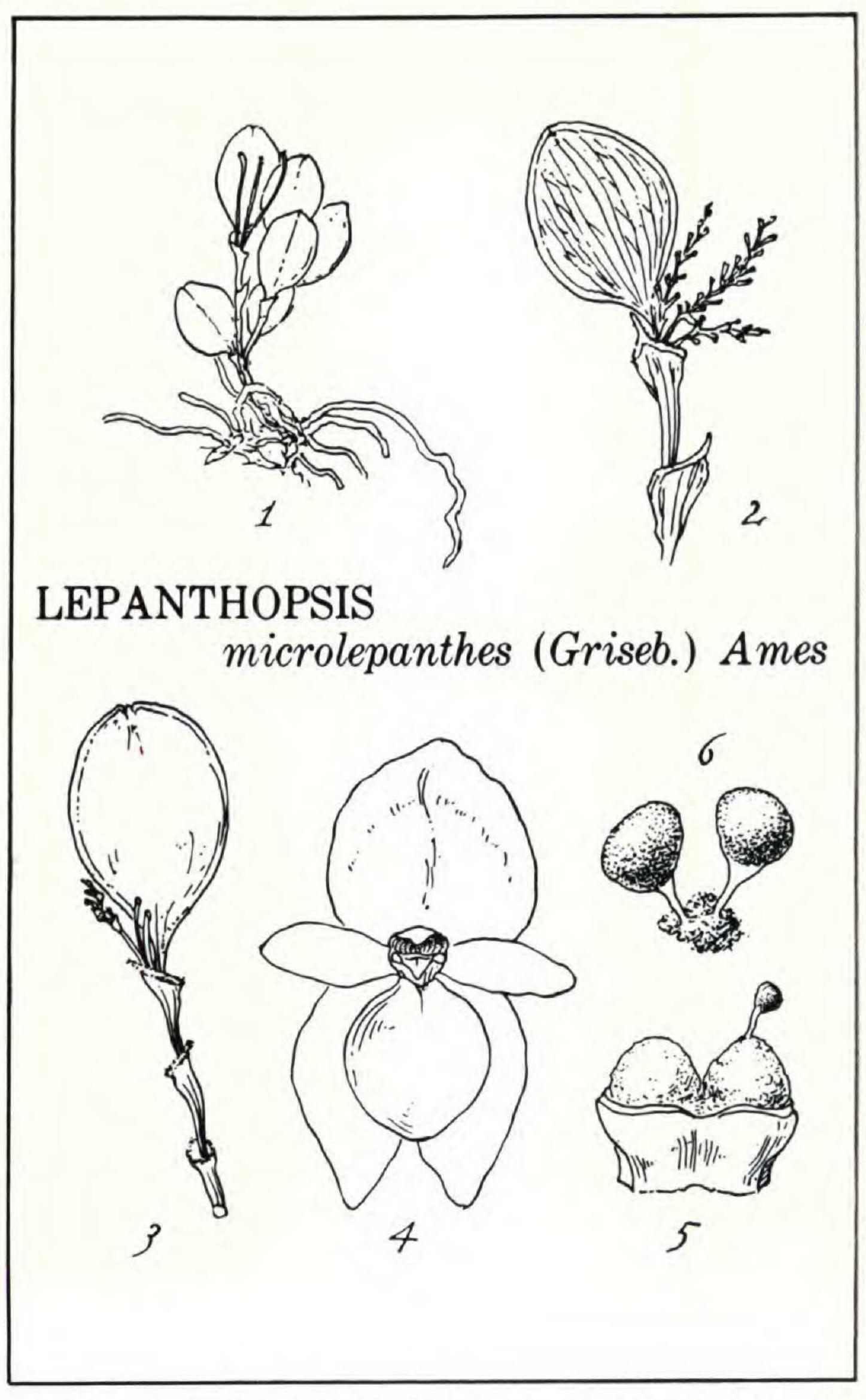
Cuba: Province of Oriente, Sierra Maestra, Pico de La Bayamesa. North slope. Altitude 4900–5200 feet. July 16–19, 1955. Coll. Harvard Course in Tropical Botany No. 000 (R. E. Schultes, A. S. Barclay, J. H. Beaman, J. A. Freeberg, T-B. Lee).

Each collection is cited in the text only by its collection number and the number of the specimen in the Ames Herbarium. For convenience, the genera are listed alphabetically and not in phylogenetic order.

Calanthe mexicana Reichenb. f. No. 597 (Hb. Ames 68351; 68354).

This terrestrial orchid, known from Jamaica, southern Mexico, Guatemala, Costa Rica and Panama, is rare in Cuba, having been found only in the Provincia del Oriente. Acuña cites it from Mt. Líbano but indicates that he saw no material from Cuba. That it is rare on the island is shown by the fact that the collection cited above is the first material from Cuba in the Ames Herbarium.

Correll (in Lloydia 10 (1947) 214) has separated the Antillean material of Calanthe as a variety: C. mexicana var. lanceolata. This variety is known from Jamaica, Haiti and the Dominican Republic. Our material



Lepanthopsis microlepanthes (Griseb.) Ames. Drawn by B. Ames.

from eastern Cuba, however, does not seem to diverge enough from the variable Calanthe mexicana to include it in this rather poorly defined variety.

Dichaea glauca (Sw.) Lindl. No. 603 (Hb. Ames 68364).

Dichaea glauca, distributed through Jamaica, Hispaniola, Mexico and Guatemala, occurs in Cuba apparently only in the eastern regions where it has been collected previously on Sierra Maestra, Gran Piedra, Loma del Gato and Punta de Palmamocha.

Dichaea trichocarpa (Sw.) Lindl. No. 687 (Hb. Ames 68232); No. 796 (Hb. Ames 68349).

Known also from Jamaica and Hispaniola, *Dichaea trichocarpa* occurs in Cuba only in the Provincia del Oriente, where it has been cited by Acuña from Pico Turquino and Loma del Gato.

Epidendrum cochleatum L. No. 609 (Hb. Ames 68361).

The widespread tropical Epidendrum cochleatum occurs throughout Cuba.

Epidendrum crassilabium Poepp. & Endl. No. 607 (Hb. Ames 68236; 68237); No. 760 (Hb. Ames 68348; 68355).

Widespread in tropical America, Epidendrum crassilabium has been reported from Cuba only from the Provincia del Oriente. In the Ames Herbarium, there is material from Loma del Gato. Acuña (under Auliza Wilsoni Acuña) cites it from Pico Turquino, Sierra de Moa and Sierra Maestra.

The collection 760 is unusually small vegetatively, but this may be due to excessive sunlight. The plant was growing on fallen trunks in a clearing made by logging operations.

Epidendrum repens Cogn. No. 601 (Hb. Ames 68362).

Known from the Antilles, Mexico, Guatemala and northern South America, *Epidendrum repens* is apparently confined in Cuba to the Provincia del Oriente, where it has been reported from Sierra Maestra between Pico Turquino and Bayamesa.

Fuertesiella pterichoides Schltr. Cranichis grandiflora Ames & Schweinf. Fuertesiella grandiflora (A. & S.) Schltr. No. 598 (Hb. Ames 68238; 68239); No. 772 (Hb. Ames 68240).

Two species have been included in this genus which has been split from Cranichis on rather minor characters: F. pterichoides from Santo Domingo and F. grandiflora (A. & S.) Schltr. from the Provincia del Oriente in Cuba. Schweinfurth later considered the latter to be synonymous with the former (Bot. Mus. Leafl. Harvard Univ. 11 (1944) 173). An examination of the ample material in the collections cited above would support this disposition of the concept Fuertesiella grandiflora.

Fuertesiella grandiflora in Cuba is known from Loma de San Juan, Sierra Maestra and Pico de La Bayamesa.

Isochilus linearis (Jacq.) R. Br. No. 699 (Hb. Ames 68235).

Widespread throughout tropical America, *Isochilus linearis* has been collected in Cuba in the mountainous parts of Santa Clara, Las Villas and Oriente. It is especially common in the Provincia del Oriente.

Lepanthes Ekmanii Schltr. No. 792 (Hb. Ames 68583).

Lepanthes Ekmanii has previously been reported from Pico Turquino.

Lepanthes Lindmaniana Schltr. No. 611 (Hb. Ames 68581).

Lepanthes Lindmaniana, known hitherto from Loma del Gato, is endemic to eastern Cuba.

Lepanthes longicruris Schltr. No. 612 (Hb. Ames 68582).

An endemic of Provincia del Oriente, this species has been reported previously from Loma del Gato and San Juan.



Calanthe mexicana. Drawn by G. W. Dillon.

Lepanthes pergracilis Schltr. No. 600 (Hb. Ames 68359; 68360); No. 765 (Hb. Ames 68358).

Lepanthes pergracilis has been cited previously from Cuba only from Pico Turquino. This second report—from the neighboring peak of Bayamesa—emphasizes its endemism in easternmost Cuba.

Lepanthopsis microlepanthes (Griseb.) Ames. Pleurothallis micro-lepanthes Griseb.

Lepanthes Leonii Schweinf. ex León. No. 602 (Hb. Ames 68579).

Lepanthopsis microlepanthes, described originally from Jamaica, has since been collected in eastern Cuba (Garay in Orch. Journ. 2 (1953) 468), where it is known from Loma del Gato and La Bayamesa.

Malaxis domingensis Ames. No. 606 (Hb. Ames 68230).

The type of *Malaxis domingensis* is from the Dominican Republic. It has been known from Pico Turquino in Cuba.

Malaxis umbelliflora Swartz. No. 604 (Hb. Ames. 68357). No. 606A (Hb. Ames 68231). No. 749 (Hb. Ames 68356).

Malaxis umbelliflora is known throughout the West Indies, from Cuba to Trinidad. From Cuba, it has been collected only in the Provincia del Oriente: from Lomo del Gato and Sierra de Nipe.

Pleurothallis prostrata Lindl. No. 613 (Hb. Ames 68584).

Pleurothallis prostrata is apparently a rare endemic of the Provincia del Oriente. It seems to have been collected previously only by Wright a century ago.

Pleurothallis racemiflora (Sw.) Hook. No. 599 (Hb. Ames 67882; 68363).

Pleurothallis racemiflora, known also from Jamaica and questionably from Venezuela, is not uncommon in the Provincia del Oriente. It has been reported from Pico Turquino, Sierra Maestra, Lomo del Gato and Gran Piedra.

Pleurothallis ruscifolia (Jacq.) R. Br. No. 608 (Hb. Ames 67878; 68233); No. 787 (Hb. Ames 68353); No. 798 (Hb. Ames 68352).

Widely dispersed in the West Indies, Middle and tropical South America, this species of *Pleurothallis* has been collected in Cuba only in the Provincia del Oriente, where it has previously been known from Pico Turquino and Loma del Gato.

Psilochilus macrophyllus (Lindl.) Ames. No. 605 (Hb. Ames 68350).

Psilochilus macrophyllus, ranging through the Antilles and tropical parts of Middle America to Venezuela and Peru, has been collected in Cuba only in the Provincia del Oriente from Sierra de Nipe, Baracoa, Pico Turquino, Loma del Gato and Pico de La Bayamesa.

Stelis ophioglossoides Swartz. No. 610 (Hb. Ames 68580).

Widely distributed in the West Indies and British Guiana, Stelis

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ophioglossoides is known in Cuba apparently only from the more tropical Provincia del Oriente. Mr. Garay, who determined the collection cited above, indicates that it is a "small form" of the species.

Xylobium palmifolium (Sw.) Benth. ex Fawcett. No. 700 (Hb. Ames 68234); No. 793 (Hb. Ames 68365).

This species, cited from Cuba by Fawcett & Rendle, is rare on the island. There has been no Cuban representation of it in the Ames Herbarium, and both Acuña and Brother León, in citing it, indicate that they have seen no specimens of it. It is known also from Jamaica, Haiti, the Dominican Republic and Trinidad.

NOTEWORTHY HEPATICAE FROM VIRGINIA

R. M. Schuster and P. M. Patterson¹

The bryophytes, and mosses in particular, have been collected over various parts of the state during the past few years (Patterson 1950, 1951, & 1955). While many species have been reported, many others are expected to occur, particularly in unusually favorable habitats. Judging from past explorations, among the more critical areas in the state are the Dismal Swamp and adjacent territory of the southeastern coastal plain from which more range extensions may be expected; and White Top and Mt. Rogers, the highest points in Virginia, where bryophytes typical of the northern coniferous forest have been found as well as a group of species endemic in or disjunct to the southern Appalachians.

This paper reports the results of collections from each of these areas. The Dismal Swamp area was visited on April 2 and 3, 1955, and the mountain peaks on June 9 & 10, 1956. Collections were made in the Dismal Swamp in the mature forest on the east side of Lake Drummond between the origins of the Feeder and Portsmouth Ditches. The area designated as Nansemond (County) is a small area of swampy streams and fields to the immediate north and northeast of Cypress Chapel in the agricultural area reclaimed from the Dismal Swamp. The third place visited was the northern edge of the Seashore State Park along Route 60; this is at the northern tip of Cape Henry in

¹ University of Massachusetts, Amherst, and Hollins College, Virginia, respectively. The specimens validating this report are deposited at the authors' respective institutions.